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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KOJI SAKUTA

Appeal 2010-002718
Application 10/781,710
Technology Center 1600

Before ERIC GRIMES, CAROL A. SPIEGEL, and MELANIE L.
McCOLLUM, *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL¹

This is an appeal under 35 U.S.C. § 134 involving claims to non-aqueous dermatic cosmetic materials. The Examiner has rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

The Specification discloses cosmetic materials comprising “a paste composition comprising a three-dimensionally cross-linked silicone polymer and a silicone oil” (Spec 1:2-5).

Claims 8-50 and 52-57 are on appeal. Claims 8 and 24 are representative and read as follows:

8. A non-aqueous dermatic cosmetic material for perspiration control, comprising:

(A) 100 parts by weight of a silicone composition paste comprising (i) a crosslinked silicone polymer having hydrophilic polyoxyalkylene groups wherein polyoxyethylene moieties are comprised and (ii) a silicone oil, and

(B) 50 to 500 parts by weight of an aluminum compound having a perspiration control activity,
wherein said material is non-aqueous.

24. A non-aqueous dermatic cosmetic material, comprising:

(A) 100 parts by weight of a silicone composition paste comprising (i) a crosslinked silicone polymer having hydrophilic polyoxyalkylene groups wherein polyoxyethylene moieties are comprised and (ii) a silicone oil,

(C) [sic] 100 to 1,000 parts by weight of lower alcohol,

(E) [sic] 100 to 1,000 parts by weight of a silicone oil having a viscosity of at most 100 mm²/s at 25°C, and

(F) 0.5 to 100 parts by weight of vitamin C,
wherein said material is non-aqueous.

The claims stand rejected under 35 U.S.C. § 103(a) as follows:

- Claims 8-23 in view of Sakuta² and Shin;³
- Claims 24-47, 50 and 52-57 in view of Sakuta and Powell;⁴ and
- Claims 8-50 and 52-57 in view of Sakuta and Kilgour.⁵

² Sakuta, EP 0 501 791 A2, Feb. 27, 1991

³ Shin, US 4,937,069, June 26, 1990

⁴ Powell et al., US 6,060,546, May 9, 2000

⁵ Kilgour, US 6,262,170 B1, July 17, 2001

I.

Issue

The Examiner has rejected claims 8-23 under 35 U.S.C. § 103(a) as being obvious in view of Sakuta and Shin. Claims 9-23 have not been argued separately and therefore stand or fall with claim 8. 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner finds that Sakuta discloses the silicone composition paste recited in part (A) of claim 8 and its use in cosmetics (Answer 3-4). The Examiner further finds that Sakuta discloses nonaqueous compositions as recited in claim 8 that are formed as intermediates in the process of making an aqueous final product (*id.* at 10). The Examiner finds that Shin “discloses anhydrous compositions comprising silicone oils” and “antiperspirant actives such as aluminum compounds” (*id.* at 4). The Examiner concludes that it “would have been obvious to one of ordinary skill in the art to have used the aluminum compounds in conjunction with the compositions of the primary reference” because Sakuta discloses the paste composition as a base for cosmetic ingredients and aluminum antiperspirant compounds are known cosmetic ingredients (*id.* at 5).

Appellant contends that Sakuta does not disclose or suggest a non-aqueous cosmetic composition (Appeal Br. 5-6) and the Examiner has not provided a reason to combine Sakuta’s composition with the antiperspirant active agent disclosed by Shin (*id.* at 6-7). Appellant also contends that the references do not suggest the recited relative amounts of paste composition and aluminum compound (*id.* at 8).

The issue with respect to this rejection is: Does the evidence of record support the Examiner’s conclusion that one of ordinary skill in the art

would have considered it obvious to combine Sakuta's paste with Shin's aluminum compound, in the recited relative amounts, to form a non-aqueous composition?

Findings of Fact

1. Sakuta discloses "pasty silicone oil compositions which comprise ... silicone polymers and silicone oils and are able to stably and uniformly disperse water therein" (Sakuta 2: 5-7).

2. Sakuta discloses that the "silicone polymer has wide utility in the fields of cosmetics and medicines" (*id.*, abstract).

3. Sakuta discloses that the pasty "composition is able to stably disperse powders or pigments therein without settlement as would otherwise be settled down in silicone oils owing to the difference in density between the silicone oil and the powder or pigment" (*id.* at 5: 25-27).

4. Sakuta discloses that "water is also dispersable in the composition without resorting to any surface active agent, so that the composition will be useful as a base for creams and cake-shaped moldings for cosmetics" (*id.* at 5: 28-29).

5. Shin discloses a "substantially anhydrous semi-solid antiperspirant composition" (Shin, abstract).

6. Shin discloses that the "principal active ingredient in the antiperspirant stick compositions ... is, of course, the antiperspirant material in the powdered state. This will ordinarily take the form of astrigent [sic] aluminum or zirconium compounds or complexes or mixtures thereof" (*id.* at col. 2, ll. 51-55).

Principles of Law

“It is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456 (CCPA 1955).

Analysis

Claim 8 is directed to a non-aqueous material that comprises 100 parts by weight of a silicone paste and 50 to 500 parts by weight of an aluminum compound with perspiration control activity.

Sakuta discloses a silicone paste for use as a cosmetic base. Sakuta also discloses that its silicone paste can be used to stably disperse powders. Shin discloses an antiperspirant composition that comprises powdered aluminum compounds or complexes as the antiperspirant agent. In view of these disclosures, it would have been obvious to combine Sakuta’s cosmetic composition with the aluminum powder of Shin to form an antiperspirant cosmetic composition, because the combination merely uses known elements for their known functions.

Appellant argues that Sakuta “does not disclose or suggest a non-aqueous cosmetic composition” (Appeal Br. 5). Appellant further argues that “the disclosure of Sakuta is directed to aqueous cosmetic compositions wherein water is dispersed in the pasty silicone composition” (*id.*).

This argument is not persuasive. Even though Sakuta discloses that the pasty composition can contain dispersed water, Sakuta also discloses that the pasty composition can be used to disperse powders. Thus, it would have been obvious to one of ordinary skill in the art use Sakuta’s pasty composition as a base for cosmetically active powders, including the antiperspirant aluminum compound of Shin. As the Examiner pointed out (Answer 10), the resulting nonaqueous composition would meet the

limitations of the claims, even if it was intended to be mixed with water in a later stage of manufacturing.

Appellant also argues that the Examiner has not provided a reason to combine Sakuta's composition with the antiperspirant active agent disclosed by Shin (Appeal Br. 6-7). In particular, Appellant argues that "the rejection presents no rationale as to why one would disperse an antiperspirant compound in the intermediate non-aqueous composition rather than dispersing the antiperspirant compound in the water which is to be mixed with the nonaqueous composition to form the final product" (*id.* at 6).

This argument is not persuasive. Shin discloses that its antiperspirant active agents are in a powdered state and Sakuta discloses that its paste stably disperses powders, so it would have been obvious to a skilled artisan to disperse the powder in the paste before adding water. Sakuta, in fact, teaches mixing powdered components with its silicone paste before mixing with water (see Sakuta 8: 30-58).

Finally, Appellant also argues that Sakuta does not suggest the relative amounts of paste composition and aluminum compound that are recited in claim 8 (Appeal Br. 8). However, one of skill in the art would understand that the ratio of silicone paste to antiperspirant agent is a result effective variable that would be optimized in the course of determining a final antiperspirant formulation. Appellant has pointed to no evidence of unexpected results for the relative amounts recited in the claims.

Conclusion of Law

The evidence of record supports the Examiner's conclusion that one of ordinary skill in the art would have considered it obvious to combine

Sakuta's paste composition with Shin's aluminum compound, in the recited relative amounts, to form a non-aqueous composition.

II.

Issue

The Examiner has rejected claims 24-47, 50, and 52-57 under 35 U.S.C. § 103(a) as being obvious in view of Sakuta and Powell. Claims 25-47, 50 and 52-57 have not been argued separately and therefore stand or fall with claim 24. 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner relies on Sakuta as discussed above. The Examiner finds that Powell discloses non-aqueous silicone emulsions for use in personal care compositions, including antiperspirant compositions, that "may comprise ascorbic acid" (Answer 6). The Examiner concludes that it "would have been obvious to one of ordinary skill in the art to have used the aluminum compounds and the ascorbic acid in conjunction with the compositions of the primary reference motivated by the desire to use personal care actives for their known function" (*id.* at 7).

In addition to the arguments made with respect to the first obviousness rejection, Appellant contends that the cited references would not have suggested combining Powell's vitamin C with Sakuta's composition with a reasonable expectation of success (Appeal Br. 11-12).

The issue with respect to this rejection is: Does the evidence of record support the Examiner's conclusion that one of ordinary skill in the art would have considered it obvious to combine Sakuta's paste with Powell's vitamin C, with a reasonable expectation of forming the claimed composition?

Additional Findings of Fact

7. Powell discloses a “non-aqueous silicone emulsion containing a silicone phase and an organic phase [that] is useful as a component in various personal care compositions” (Powell, abstract).

8. Powell discloses that the “personal care applications where the emulsions of the present invention may be employed include ... deodorants, antiperspirants, skin care products,” etc. (*Id.* at col. 16, ll. 45-52.)

9. Powell discloses that “[i]n a preferred embodiment, a personal care composition comprises non-aqueous emulsion of the present invention and one or more water-sensitive dermatological active agents or cosmetic active agents, such as for example, ascorbic acid” (*id.* at col. 16, l. 64-col. 17, l. 1).

Principles of Law

“Obviousness does not require absolute predictability of success... For obviousness under § 103, all that is required is a reasonable expectation of success.” *In re O’Farrell*, 853 F.2d 894, 903-04 (Fed. Cir. 1988).

Analysis

Claim 24 is directed to a non-aqueous material, comprising a silicone composition paste, a lower alcohol, a silicone oil, and vitamin C. Appellant does not dispute that combining Sakuta’s silicone paste with a lower alcohol and silicone oil would have been obvious, or that silicone oils with claimed viscosity are suggested by the cited references. We agree with the Examiner that it would have been obvious to one of ordinary skill in the art to combine ascorbic acid (vitamin C) with Sakuta’s silicone paste cosmetic base because Powell discloses that ascorbic acid is a known dermatological or cosmetic active agent useful in silicone-based personal care compositions.

Appellant argues that “the rejection presents no rationale as to why one would disperse vitamin C in the intermediate non-aqueous composition rather than dispersing the antiperspirant compound [sic, vitamin C] in the water which is to be mixed with the non-aqueous composition to form the final product” (Appeal Br. 11).

This argument is not persuasive. Powell discloses that ascorbic acid is a “water-sensitive” dermatological or cosmetic active agent. Thus, one of skill in the art would have considered it obvious to combine vitamin C with Sakuta’s non-aqueous cosmetic base composition rather than water.

Appellant further argues that in view of the “problems associated with stabilizing ... vitamin C in skin care composition is described in applicants’ specification at pages 1-3[,]. . . one of ordinary skill in the art would have no expectation that the silicone composition of Sakuta would be suitable for stabilizing ... vitamin C in skin care compositions” (Appeal Br. 11).

This argument is not persuasive. The Specification states that “the water solution of vitamin C ... is inferior in storage stability” (Spec. 3: 13-15) and that “it is difficult to obtain homogeneous dispersions” when vitamin C dispersed in alcohol is combined with silicone oil (*id.* at 3: 18-22). However, Appellant has not explained why either of these factors would have led a skilled worker to doubt the success of including vitamin C in Sakuta’s composition, even if the composition might have less storage stability or homogeneity than other vitamin C-containing compositions that could be made. In accord with *In re O’Farrell*, obviousness only requires a reasonable expectation of success.

Appellant's arguments regarding the "non-aqueous" limitation of claim 24 (Appeal Br. 9-11) and the relative amounts recited in claim 24 (*id.* at 13) are addressed above with respect to claim 8.

Conclusion of Law

The evidence of record supports the Examiner's conclusion that one of ordinary skill in the art would have considered it obvious to combine Sakuta's paste with Powell's vitamin C, with a reasonable expectation of forming the claimed composition.

III.

Issue

The Examiner has rejected claims 8-50 and 52-57 under 35 U.S.C. § 103(a) as obvious in view of Sakuta and Kilgour. Claims 9-50 and 52-57 stand or fall with claim 8, and claims 25-47, 50 and 52-57 stand or fall with claim 24. 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner relies on Sakuta as discussed above. The Examiner finds that Kilgour "discloses personal care compositions comprising silicone elastomers" (Answer 7). The Examiner further finds that the Kilgour compositions include aluminum antiperspirant compounds and vitamin C as active ingredients (*id.* at 7-8). The Examiner concludes that it "would have been obvious to one of ordinary skill in the art to have used the aluminum compounds and vitamins C and E in conjunction with the compositions of the primary reference motivated by the desire to use personal care actives for their known function" (*id.* at 8).

In addition to the arguments made with respect to the first obviousness rejection, Appellant contends that the silicone compositions of

Sakuta and Kilgour are so different that one of skill in the art would not be motivated to apply the active agents of Kilgour to the silicone paste composition of Sakuta (Appeal Br. 14).

The issue with respect to this rejection is: Does the evidence of record support the Examiner's conclusion that one of skill in the art would have considered it obvious to combine Sakuta's paste with Kilgour's aluminum compounds and vitamin C active agents?

Additional Findings of Fact

10. Kilgour discloses "a cross-linked alkyl substituted silicone elastomer" (Kilgour, col. 1, l. 25-31) that may be used in personal care compositions (*id.* at col. 1, ll. 59-61).

11. Kilgour discloses that the "personal care applications where the silicone elastomer of the present invention may be employed include, but are not limited to, deodorants, antiperspirants," etc. (*id.* at col. 7, l. 65 to col. 8, l. 1).

12. Kilgour discloses that "[i]n a preferred embodiment, an antiperspirant composition comprises one or more active antiperspirant agents, such as, for example, aluminum halides ... and the silicone elastomer of the present invention." (*Id.* at col. 8, ll. 19-26.)

13. Kilgour discloses that "[i]n a preferred embodiment, a personal care composition comprises a non-aqueous emulsion of the silicone elastomer of the present invention and one or more water-sensitive dermatological active agents or cosmetic active agents, such as for example, ascorbic acid" (*id.* at col. 8, ll. 39-43).

Analysis

Claims 8 and 24 are set forth above. As discussed above, Sakuta discloses a silicone paste, for use as a cosmetic base, that can be used to stably disperse powders or pigments. Kilgour discloses silicone-based compositions as a base for personal care compositions, including compositions comprising ascorbic acid or aluminum antiperspirant active agents. In view of these disclosures, it would have been obvious to one of skill in the art to combine Sakuta's paste composition with either ascorbic acid or an aluminum antiperspirant compound to form cosmetic compositions containing these active ingredients, because the combination merely uses known elements for their known functions.

Appellant argues that the "silicone elastomer described in Kilgour is hydrophobic since it does not have any hydrophilic groups.... [O]ne of ordinary skill in the art would not modify the composition of Sakuta in view of the Kilgour reference, since the oxyalkylene unit-containing silicone of Sakuta is completely different physically." (Appeal Br. 14.)

This argument is not persuasive. Appellant has pointed to no disclosure in Kilgour to support the conclusion that Kilgour's vitamin C and antiperspirant active agents could not be combined with Sakuta's silicone paste composition which, like Kilgour's composition, is silicone based and disclosed for use with personal care active ingredients. Thus, the evidence supports the Examiner's position that one of skill in the art would reasonably expect the Sakuta silicone-based composition to serve as a carrier for the active ingredients disclosed in Kilgour.

Appellant's argument regarding the relative amounts recited in claims 8 and 24 (Appeal Br. 14-15) is addressed above with respect to claim 8.

Conclusion of Law

The evidence of record supports the Examiner's conclusion that one of skill in the art would have considered it obvious to combine Sakuta's paste with Kilgour's aluminum compounds and vitamin C active agents.

SUMMARY

We affirm the rejection of claims 8-50 and 52-57 under 35 U.S.C. § 103(a).

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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